

# CONCRETE CONSTRUCTION

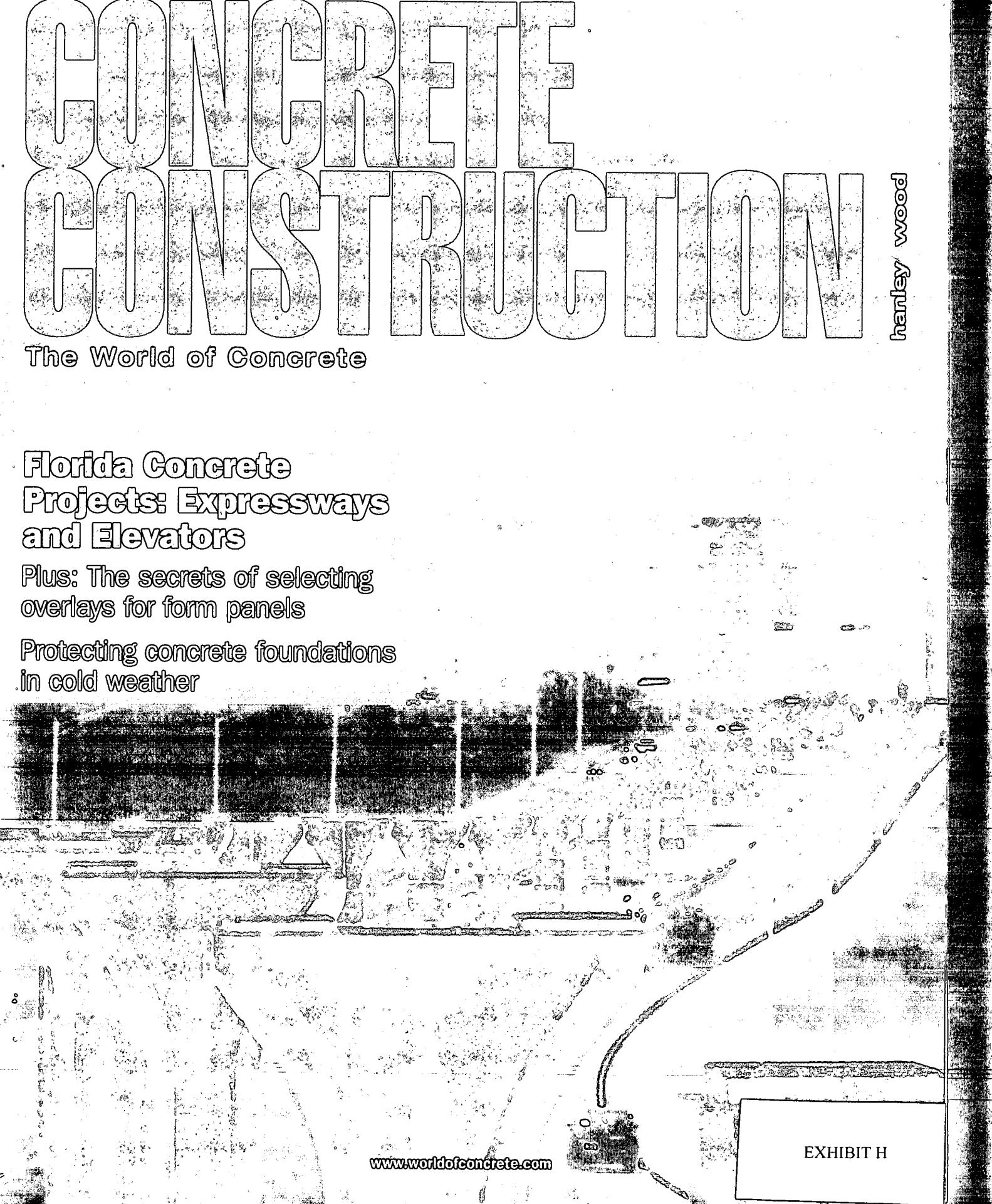
hawley wood

The World of Concrete

## Florida Concrete Projects: Expressways and Elevators

Plus: The secrets of selecting overlays for form panels

Protecting concrete foundations in cold weather



www.worldofconcrete.com

EXHIBIT H

## Decorative Concrete

has success with  $\frac{3}{8}$ -inch rebar placed in the long direction of a countertop, 8 inches apart. He ties pencil rod to the rebar in the other direction at either end and in the middle to hold everything in place. The reinforcement is placed in the middle of the thickness of the slab. He adds that he also places  $\frac{3}{8}$ -inch rebar  $1\frac{1}{2}$  inches from the edge of sink openings to provide additional support.

Bob Richardson of R.C. Richardson & Associates, who consults for the Wire Reinforcement Institute, Hartford, Conn., says that wire reinforcement is a good way to control temperature and shrinkage forces. To accomplish this, the tensile strength supplied by the wire reinforcement must be greater than the shrinkage

forces in the concrete. He recommends using 12-gage wire mesh in 2-inch squares (2x2-12x12) or 10-gage wire mesh in 4-inch squares (4x4-10x10)—either of which will provide the necessary strength. The numerous welded intersections of the mesh increase bond strength to the concrete. Mesh should be placed in the center of the thickness. Wrap sink openings with rebar in the same way noted previously.

Using high volume structural fibers is another way to reinforce countertops. A primary benefit is that they offer tensile and flexural strengths in all directions. These fibers are made from metal, fiberglass, and plastic materials. But if a countertop surface is to be diamond-polished, the deci-

sion about which fiber to use is important. Most products are very noticeable when they are revealed in the polishing process.

### Mix designs

Reducing shrinkage and porosity while providing good compressive strength (4000 psi or more is recommended for good polishing results) are the functions of a good mix design. There is less shrinkage and permeability in concrete mixes featuring maximum aggregate size in relation to the placement thickness and gradations of aggregate sizes in order to achieve good "particle packing." This makes it possible to decrease the amount of cement needed while increasing the strength of the concrete.

## Decorative Concrete MIP Entries

### Lightweight forms

The Arch-Crete forming system delivers natural stone finishes with the help of lightweight composite materials, at a fraction of the cost of existing textured forming systems. The standard 3x6-foot panels weigh less than 70 pounds, while the face texture has a lifespan of more than 1500 pours. The manufacturer has also redeveloped existing fastening technologies with stronger, more stable, and easier-to-use spacer ties, walers, stiffeners, and aligners. Several textures, including custom textures, are available. The forms are impervious to most chemicals, so no problems with



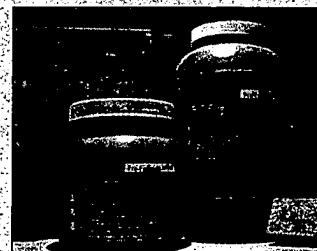
### Stencils that turn

Install decorative curved, or irregular borders on concrete slabs with the Daniels stamping system. The beauty of this innovative stenciling system lies in the ease of putting highly-decorative designs on rounded edges in little time. The male and female ends swivel as much as 80 degrees. The lightweight stamps save time by doing the slab as one pour. Contractors can learn to use the tools quickly, and the artistic touch gives something special to driveways, walkways, and patios. *Custom Concrete Creations*, Booth 7793, 716-892-2420, [www.cccbyshawndaniels.com](http://www.cccbyshawndaniels.com), Circle 4.

### Concrete countertop mix

NeoMix Pro-Formula is an all-in-one mix concentrate for concrete countertops. All that is needed is sacked concrete

and water for a strong, richly colored concrete countertop. The ingredients combine strength, speed, and ease-of-use in this professional-grade product. The product creates a workable mix that flows effortlessly into the mold. It also contains elements that prevent shrinking, increase strength, and reduce micro-cracking. The ready-measured, packaged ingredients

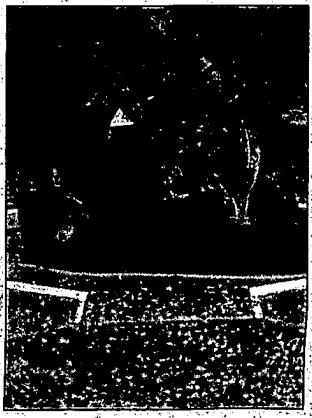


yield consistent results, in 10 designer colors. Contractors get more creative control over their projects, in a cost-effective, worry-free, accurately measured solution. Author of the book *Concrete Countertops: Design, Forms and Finishes for the New Kitchen and Bath*, Fu-Tung Cheng, developed Pro-Formula: *Cheng Concrete Exchange*, Booth 5587, 510-849-3272, [www.chengdesign.com](http://www.chengdesign.com), Circle 5.

### Terrazzo topping

Terratop is a cementitious terrazzo topping that bridges the gap between thick-build cementitious terrazzo and the thinner but more difficult to work epoxy terrazzo. It can be installed over existing concrete surfaces in a  $\frac{3}{8}$ -inch layer. Any NTMA-approved aggregate or filler can be broadcast into the base to form elegant artistic designs. The terrazzo can be ground and polished to a  $\frac{1}{4}$ -inch thickness the following day. In Terratop, the durability and beauty of an ancient art are married to the new millennium's need for speed.

*MAPEI Corp.*, Booth 7854, 954-246-8604, [www.mapei.com](http://www.mapei.com), Circle 6.



color additives will occur. *Architectural Concrete Creations*, Booth 2023, 877-753-6767, [www.arch-crete.com](http://www.arch-crete.com), Circle 3.

# YOU PICK the MIP Winners

*most innovative products*



**MIP**

Vote in the second annual Most Innovative Products Contest at the World of Concrete

By **Ted Worthington**,  
Managing Editor,  
**CONCRETE  
& MASONRY  
CONSTRUCTION  
PRODUCTS**

The debut of Hanley Wood's Most Innovative Products competition was a resounding success at last year's World of Concrete 2003. This unique competition allowed a panel of experts and attendants at the show to select from more than 130 products in 11 categories to determine what they thought could have the greatest impact on the concrete and masonry industries.

This year's contest will include both the Experts' Choice and the Attendees' Choice awards. However, this time around, the editors of **CONCRETE CONSTRUCTION**, **THE CONCRETE PRODUCER**, **MASONRY CONSTRUCTION**, and **CONCRETE & MASONRY CONSTRUCTION PRODUCTS** pored over all entries, drawing on their industry knowledge and experience to choose the finalists. Although the process was difficult, we have decided to be a bit more selective but offer awards in more categories.

We have expanded the categories to 13, covering both the masonry and concrete arenas. Now, we submit to you a selection of the Most Innovative Products entries and ask you to pick which items you think are the best and brightest the construction industry has to offer. It's a tough job, but we know you can do it.

To participate, see the Most Innovative Products displays around the show floor. Pick up a ballot, and let your voice be heard.

### Vote and receive discounts

Voters during the show will get a discount on apparel purchases at the World of Concrete Bookstore.

All voters will also be eligible to enter a drawing for three round-trip plane tickets to World of Concrete 2005 in Las Vegas.

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